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*NSD*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/048,795	03/27/98	ICHIZAKI	T 35.62127

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30 ROCKEFELLER PLAZA  
NEW YORK NY 10112

EXAMINER

ANDERSON, M

ART UNIT	PAPER NUMBER
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1765

*17*

DATE MAILED: 01/11/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
09/048,795

Applicant(s)  
Ichizaki

Examiner  
Matthew Anderson

Group Art Unit  
1765



☒ Responsive to communication(s) filed on 11/14/00

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1, 2, 27-34, and 36-44 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1, 2, 27-34, and 36-44 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## DETAILED ACTION

### *Examiner's Note*

The applicant is reminded that use claims do not impart patentability to apparatus. Please refer to MPEP 2111.02 and MPEP 2173.05(q). Please see the above MPEP sections for germane case law citations.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 27-34, 36-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokuhara in view of Cheredov [Inorganic Materials, Vol. 28, No. 3 1992 (Russian)] and Wanetzky (US 4,818,282).

Tokuhara describes an apparatus used for producing optical fibers by using crucibles. The crucible is divided into multi-stages, each of which has an overflow passage on the sidewall (See

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Fig. 2.) Such an arrangement of crucibles reads on the claims of the applicant of a production apparatus having a crucible divided in multi-stages wherein a degassing hole is provided in a side wall portion of the crucible.

Tokuhara et al. does not disclose an apparatus wherein the crucibles (i.e. stages) are arranged such that the lower portion of a first stage of said plurality of stages is positioned to cover an upper edge of a wall portion of a second stage of said plurality of stages.

Cheredov in Fig I shows the sequential location of the crystallization front of a Calcium Fluoride crystal being refined in the multistage crucible shown. Also seen is a hole in the center bottom of each crucible stage. Also disclosed is the use of oxygen for assisting the purification of the CaF being refined. This suggests gas flow as important to a successful crucible apparatus.

Wanetzky et al. discloses staked crucibles (22) which have capillary gaps (28) for gas flow at the walls (24) thereof in the only Fig. Also clearly shown is a central concentric opening (26) in the crucibles.

It would have been obvious to modify the apparatus of Tokuhara, Cheredov, and Wanetzky to one of ordinary skill in the art at the time of the present invention because all inventions disclose multi-staged crucible apparatus and such a combination would have been anticipated to produce useful modifications to such apparatus.

It would have been obvious to one of ordinary skill in the art at the time of the present invention that such a crucible apparatus would provide means for a sequential manner of use

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because such a use is disclosed by Cheredov and because such a use would have been anticipated to produce an expected result.

It would have been obvious to duplicate the part of degassing holes (see MPEP 2144.04 VI.B) because Tokuhara discloses a hole in the side wall of the crucibles and duplication of such holes would have been anticipated to produce an expected result.

It would have been obvious to one of ordinary skill in the art at the time of the present invention to include a connecting hole in the bottom center portion of the crucibles because such an arrangement is shown by Cheredov et al. and Wanetzky et al. and because such an arrangement would have been anticipated to produce an expected result.

It would have been obvious to one of ordinary skill in the art at the time of the present invention to modify the size of the degassing hole and the inner diameter of the crucible ( see MPEP 2144.04 IV.A), and the shape of the bottom face of the crucible (MPEP 2144.04 IV.B, because Tokuhara et al. discloses degassing holes in the sidewall of a crucible, Cheredov et al. and Wazetzky et al. discloses multistage crucibles with a hole at the center, and because such modification would have been anticipated to produce an expected result.

It would have been obvious to one of ordinary skill in the art at the time of the present invention that the crucibles of Tokuhara have a region for mounting a material (e.g. another crucible) because the crucible are described as stacking one on the other in the abstract and because providing such a mounting region on a crucible would have been anticipated to produce an expected result.

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Additionally, It would have been obvious to one of ordinary skill in the art at the time of the present invention to use crucibles in a stacked manner wherein the first stage of a plurality of stages is positioned to cover an upper edge of a wall portion of a second stage because Cheredov et al. and Wanetzky et al. both describe such crucibles and such crucibles would have been anticipated to produce an expected result .

It would have been obvious to one of ordinary skill in the art at the time of the present invention that a region, obtained by superimposing a plurality of crucibles, would receive a material because Tokuhara discloses such a region in Fig. 2 and such a region would have been anticipated to produce an expected result.

It would have been obvious to one of ordinary skill in the art at the time of the present invention to have as the bottom stage a crucible without a connecting hole because if used with a refining method such as Cheredov's, such a stage would prevent loss of the refined molten material out onto the floor which would result in possible worker injuries and material losses and because such a bottom crucible would have been anticipated to produce an expected result.

### *Conclusion*

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matt Anderson whose telephone number is (703) 308-0086. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 5:00 PM.

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If attempts to reach the examiner by telephone are not successful, the examiner's supervisor, Benjamin Utech, can be reached at (703) 308-3836.

Any inquiry of a general nature can be directed to the group receptionist whose telephone number is (703) 308-0661.

MAA

January 10, 2001

  
BENJAMIN L. UTECH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700